What is claimed is:

1. A primer composition for forming a primer layer between an organic glass base material and a silicone based hardening coating film characterized in that whole or main body of a primer layer formation polymer is of polyester based thermoplastic elastomer (hereinafter, referred to as "ester based TPE").

2. A primer composition for forming a primer layer between an organic glass base material and a silicone based hardening coating film characterized in that whole or main body of a primer layer formation polymer is of ester based TPE, and contains a metal oxide particle as an optical interference control agent.

3. The primer composition as claimed in Claim 2, characterized in that molar ratio of hard segment and soft segment of said ester based TPE is the former / the latter = 30 / 70 - 90 / 10, and said ester based TPE indicates surface hardness (Shore hardness D): 35-75, bend elasticity: 40-800 MPa.

4. The primer composition as claimed in Claim 1, characterized in that molar ratio of hard segment and soft segment of said ester based TPE is the former / the latter = 30 / 70 - 90 / 10, and said ester based TPE indicates surface hardness (Shore hardness D): 35-75, bend elasticity: 40-800 MPa.

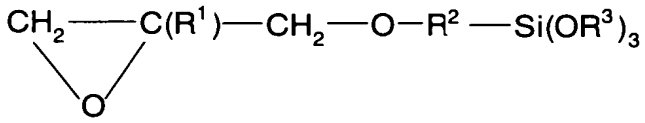
5. An optical element constructed by forming a hard coat layer consisted of a silicone based hardening coating film on surface of an organic glass base material, characterized in that a primer layer formed with a primer

composition claimed in Claim 1, 2, 3 or 4 is intervened between said organic glass base material and silicone based hardening coating film.

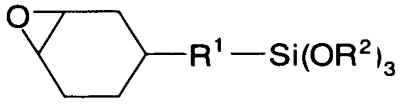
6. A hard coat composition for forming said silicone based hardening coating film characterized in that said hard coat composition is consisted of hydrolysate of alkoxysilane whose main body is trialkoxysilane containing a monoepoxy organic group as a matrix formation ingredient, and titanium based metal oxide complex particle as an optical interference control agent, and said titanium based metal oxide complex particle is consisted of TiO_2 as a main body, and SiO_2 as a major sub-ingredient, and further, ZrO_2 and K_2O as a trace sub-ingredient.

7. The hard coat composition as claimed in Claim 6, characterized in that for said titanium based metal oxide complex particle, average diameter thereof is made as one being in a range of 1-50 nm, composition thereof is made as one satisfying each weight ratio of SiO_2 / TiO_2 = 0.1900-0.2100, ZrO_2 / TiO_2 = 0.0015-0.023, K_2O / TiO_2 = 0.0012-0.012, content thereof is in a range of 40-100 weight portions to 100 weight portions of whole alkoxysilane content.

8. The hard coat composition as claimed in Claim 7, characterized in that said trialkoxysilane containing said monoexpoxy organic group is consisted of one or more than species selected from the group represented by general formula (1):



(where R^1 represents H or CH_3, R^2 represents alkylene group having 1-4 of carbon atoms and R^3 represents alkyl group having 1-4 of carbon atoms), or represented by general formula (2):



(where R^1 represents alkylene group having 1-4 of carbon atoms and R^2 represents alkyl group having 1-4 of carbon atoms).

9. The hard coat composition as claimed in Claim 8, characterized in that alkoxysilane except for said trialkoxysilane containing said monoexpoxy organic group is tetraalkoxysilane represented by general formula (3):

$Si(OR^1)_4$

(where R^1 represents alkyl group having 1-4 of carbon atoms), content of the relevant tetraalkoxysilane is 20wt% or less in total contents of said alkoxysilane.

10. The hard coat composition as claimed in Claim 9, characterized in that said hard coat composition contains an organic metal compound as a hardening agent of a matrix formation ingredient, the relevant organic metal compound is consisted of one or more species selected from the group of chelate compounds of Cr (III), Co (III), Fe (III), Zn (II), In (III), Zr (IV), Y (III), Sn, V, Al (III), Ti (II) with which chelating agent selected from

ethylenediamine-tetraacetic acid, hexafluoroacetylacetone, trifluoroacetylacetone, acetylacetone and methyl acetoacetate coordinates.

11. An optical element, characterized in that said optical element has a hard coat layer formed by a hard coat composition claimed in Claim 5, 6, 7, 8 or 9 on an organic glass base material.

12. An optical element constructed by forming a hard coat layer on a surface of an organic glass base material via a primer layer, characterized in that for a primer composition forming a primer layer, whole or main body of primer layer formation polymer is made as being ester based TPE,

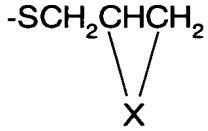
a hard coat composition forming said hard coat layer is consisted of hydrolysate of alkoxysilane whose main body is trialkoxysilane containing monoepoxy organic group as a matrix formation ingredient, and titanium based metal oxide complex particle as an optical interference control agent, and

said titanium based metal oxide complex particle is consisted of TiO_2 as a main body, SiO_2 as a major sub-ingredient and further ZrO_2 and K_2O as a trace sub-ingredient.

13. The optical element as claimed in Claim 12, characterized in that said primer composition further contains a metal oxide particle as an optical interference control agent.

14. The optical element as claimed in Claim 12 or 13, characterized in that said organic glass base material

is obtained by polymerizaing and reacting (1) one or more pieces of active hydrogen compounds selected from the group of polyol, polythiol and hydroxy compound having a mercapto group, and (2) one or more pieces selected from the group of polyisothiocyanate compounds or isothiocyanate compounds having a isocyanate group, or obtained by polymerizing and reacting episulfide having cyclic skeleton having two pieces or more of structure represented by general formula (4):



(where X represents S or O, the number of pieces of S is 50% or more on average with respect to total of S and O constituting three membered ring).

15. The optical element as claimed in Claim 12, characterized in that a reflection prevention film layer is further laminated on said hard coat layer.

16. The optical element as claimed in Claim 15, characterized in that said reflection prevention film whose design center wavelength λ is made in a range of 450-550 nm, has a multiple structure in which said hard coat layer side, a medium refractive index layer having an optical film thickness of 0.19-0.29λ, a high refractive index layer having an optical film thickness of 0.42-0.58λ, and a low refractive index layer having an optical film thickness of 0.19-0.29λ are in turn formed.

17. The optical element as claimed in Claim 16, characterized in that said medium refractive index layer

and said high refractive index layer are consisted of an equivalent film consisted of two or more layers using different refractive index substances, respectively.

18. A film-forming method of a reflection prevention film, characterized in that an ion cleaning processing is performed on hard coat layer surface prior to the film-forming of a reflection prevention film claimed in Claim 15, 16 or 17.

19. The film-forming method of a reflection prevention film as claimed in Claim 18, characterized in that a film-forming of at least high refractive index layer out of said reflection prevention films is performed by vapor deposition using an ion beam assist method.

20. A composition for dyeing used when an organic glass base or an organic glass base material having hard coat layer (hereinafter, referred to as "object base material to be dyed") is sublimely dyed, characterized in that a sizing agent is made being as an acrylic resin, a dye is made as being water insoluble dye, and a dye resolving agent is made as being an organic solvent having 8 - 11 of a SP value (resolving property parameter).

21. The composition for dyeing as claimed in Claim 20, characterized in that blending weight ratio of said acrylic resin and said nonionic dye is the former / the latter = 60/40 - 5/95.

22. A method of coloring an organic glass coloring an object base material to be dyed using a composition for dyeing claimed in Claim 20 or 21, characterized in that a migration is performed within said object base material

to be dyed by sublimating said nonionic dye after forming adhesion film by coating said composition for dyeing on an object base material to be dyed.

23. The method of coloring an organic glass as claimed in Claim 22, characterized in that the sublimation of said nonionic dye is performed by heat processing at a temperature ranging from 100 to 200°C.

24. An optical element in which a hard coat layer is formed on an organic glass base material surface via a primer layer and further an organic glass base material is sublimely dyed, characterized in that for a primer composition forming a primer layer, whole or main body of primer layer formation polymer is made as being ester based TPE,

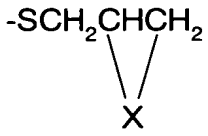
a hard coat composition forming said hard coat layer is consisted of hydrolysate of alkoxysilane whose main body is trialkoxysilane containing monoepoxy organic group as a matrix formation ingredient, and titanium based metal oxide complex particle as an optical interference control agent,

said titanium based metal oxide metal complex particle is consisted of TiO_2 as a main body, SiO_2 as a major sub-ingredient and further ZrO_2 and K_2O as a trace sub-ingredient, and further,

for a composition for dyeing used for said sublimation type dyeing, a sizing agent is made as being an acrylic resin, a dye is made as being water insoluble dye, and a dye resolving agent is made as being an organic solvent having 8-11 of a SP value (resolving property parameter).

25. The optical element as claimed in Claim 24, characterized in that said primer composition further contains a metal oxide particle as an optical interference control agent.

26. The optical element as claimed in Claim 24 or 25, characterized in that said organic glass base material is obtained by polymerizaing and reacting (1) one or more pieces of active hydrogen compounds selected from the group of polyol, polythiol, and hydroxy compound having a mercapto group, and (2) one or more pieces selected from the group of polyisothiocyanate compounds or isothiocyanate compounds having a isocyanate group, or obtained by polymerizing and reacting episulfide compounds having cyclic skeleton having two pieces or more of structure represented by general formula (4):



(where X represents S or O, the number of pieces of S is 50% or more on average with respect to total of S and O constituting three membered ring).